ISD News and Views

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ISD Reorganization

ISD is in the final stages of a Division-wide reorganization. Many of the changes occurring are structural as far as personnel and reporting schemes go, but the overriding theme in reorganizing is to alter the philosophy of the Division and enhance how it serves its customers.

In revamping the organization, careful consideration has been given to the notion of providing a more "horizontal" structure. This "horizontal" structure will enable personnel from ISD's various bureaus to approach projects as a work group, thus being able to draw from varieties of expertise in each bureau.

Philosophically, the new organization will become more "extroverted", stressing customer relations and service as the deliverable product. This will yield better communication between ISD and its customers, and promote early involvement in agency projects.

ISD's new philosophical guidelines statement is provided below. The latest overall organizational chart and each bureau's functional organizational chart are attached at the end of this issue. Your comments are strongly encouraged.

ISD PHILOSOPHICAL GUIDELINES

- **Customers**

Agency Outreach. Ensure sufficient time is spent listening to customers to understand their needs.

Customer Services. Emphasis on customer support as a fundamental reason for ISD's existence. Ensure there are sufficient and appropriate points of contact with customers.

- Organization

Horizontal Orientation. Emphasis on working with expertise across the organization rather than relying solely on a unit's internal expertise, or building the expertise internally.

Division Perspective. Foster a Division perspective. Encourage thinking like a Division, not as a bureau, section, or unit.

Consolidated Planning. Planning activities centralized in one location; minimal redundant planning efforts.

Goal Consistency. Better understanding of Division goals and ensuring work is directed towards meeting those goals.

Inter-Bureau Project Coordination. Division-wide coordination of projects.

Team Building. Inter- and intra-bureau project teams as a standard, accepted means of assembling required expertise.

Internal Communications. Improved internal communications between units, sections, and the bureau.

Peer Employee Relations. Mutual respect of fellow ISD employees.

- Technology

Technological Positioning. Proactive approach with emerging technologies.

Technological Diversity. More emphasis on the type of technology, not the particular vendor or platform, at all levels within the Division (individual employee, unit, section, and bureau).

Term Contract Status

Dell

Dell has available a new high-end server series, the PowerEdge SP and PowerEdge XE. They feature Pentium or i486 processors, 256K write-back cache, and a PCI local bus. The servers boast a very high rate of up-time, data integrity,

and fault-tolerance. The Dell SCSI Array allows you to attach as many as 14 drives or other peripherals.

In other news, Dell has finally entered the notebook market again, with their introductory line called "Latitude". Models available are the 425, 433, 433c, and 433cx; choice of monitors are active-matrix TFT, dual-scan STN, and monochrome. The new price list has been distributed via Zip!Mail.

DEC/Wyle

The DEC price list has been revised substantially, including the addition of a new line, the DECpc XL. The highlights on this new system are: modular design for upgradeability, 6 slots (3 PCI), PCI local bus, and standard 8MB RAM and 128K write-back cache. This line also includes the Pentium microprocessors, 560 and 566.

ComputerLand/IBM

ComputerLand's availability looks good on the PS/Valuepoints, PS/2 model 9553, and the Thinkpad 350 and 500. You should call Mike Price (443-3200) before ordering. The Thinkpad 720's have been withdrawn from the market and are no longer available. The color Thinkpad models and most PS/2 models continue to be difficult to get.

Term Contract Notes

Price lists are now more accessible! All of the latest price lists are sent via ZIP!mail. If you would like a copy, give Brett (444-0515) or Dan Sidor (444-2029) a call. Now, due to popular demand, look for the latest prices under the GUEST\CONTRACT.TRM subdirectory on the ISDNOVS01 server.

Mark your calendars! On April 14th, all term contract vendors (Dell, DEC, IBM, & HP) will be in town to show off their products and give brief presentations. This event is tentatively scheduled at Helena Vo-tech from 10:00 a.m. to 4:00 p.m. Come see what great deals the vendors are offering, and place your order before the end-of-the-year scramble!

SBAS Support Unit News

As with all large computer systems, SBAS requires security precautions to protect the integrity of the State's financial information. Both the SBAS Support Unit (SSU) and ISD are responsible for this security.

For users to access OE&E for inquiry or to enter, correct, or approve SBAS documents, they must first be assigned user identification numbers and be set up to use DCPROD by ISD. Then SSU must be notified by the users' agencies of the specific access the users will be allowed. By submitting an OE&E User Control Standards form to the Accounting Bureau, agencies can control the forms and document number ranges that each user can access as well as the actions that users may perform on those documents. Once users are authorized to access OE&E to enter, correct, or approve, they have inquiry capabilities to all documents, control ledgers, and ICC reporting and responsibility center attributes for all agencies by default. A user can also be set up to inquire without being given any other access. Users with OE&E inquiry access are also allowed to inquire into warrants for their input agency(s).

The User Control Standards form can be found in the OE&E Manual. Each agency may make copies as needed for their use. For your convenience, SSU accepts these forms by ZIP!Mail and has a WordPerfect copy of the form available on request. This form is used to establish new OE&E users and to change or delete a user's allowable accesses. We appreciate knowing about a name change on a mainframe ID, but remind you that ISD must make that change.

Most agencies protect their files by writing access rules to authorize users to read, write, and allocate data sets. Since SBAS is a statewide system, all authorized State mainframe users are authorized to read (only) its data files. Information on file names, descriptions, and records and their use can be obtained from SSU.

If you have any questions or concerns about SBAS, ICC, PAMS, or OE&E, call the SBAS Support Unit in the Accounting Bureau at 444-3092.

Mainframe

New Computing Operations Services

The Computer Operations Bureau can now offer improved processing and print services to our user community. These improved services, outlined below, are the result of the upgrades made to the mainframe computer system during the past year.

Beginning March 1, 1994, the following changes to our processing operating standard will take effect:

.   The print output limit for non-scheduled computer jobs is increased from 250,000 lines to 1,000,000 lines of print. Computer jobs that produce printed output that exceed this limit must be scheduled in advance with ISD Operations staff.

.   A new prime shift job class, F, will be added to our processing options. Class F will allow for the allocation of up to five (5) tape cartridge drives, or four (4) round reel drives, or any combination of five (5) cartridge and round reel drives per job step and a maximum of three (3) hours processing wall time.

.   Class N is changed to process during non-prime shifts at the normal discount rate. Class N will allow for the allocation of up to five (5) tape cartridge drives, or four (4) round reel drives, or any combination of five (5) cartridge and round reel drives per job step and a maximum of three (3) hours processing wall time.

Please note that jobs which exceed these standards must be submitted with **TYPRUN=HOLD** on the job card and be scheduled with the computer operations staff at 444-1815, or 444-2860.

Just a reminder--as of July 1, 1994, ISD will reduce the number of 3420 tape drives (Round

Reel) from six (6) to two (2) drives. The above standards will be modified when this occurs.

Square Tape

In January, ISD installed ESCON channel adapters on the 3490 Tape Subsystem. This install allows us to take advantage of the four ESCON channels configured on the 3090-400J. ESCON channels operate at a ten-megabyte-per-second transfer rate. The substituted parallel channels operate at a four-and-one- half-megabyte-per-second transfer rate. We decided to use the ESCON channels for tape processing because it offered the greatest return on investment to our general mainframe user.

For the heavy cartridge tape user, computer job turnaround is improved by 13%. The heavy round tape user can expect a 57% improvement in computer job turnaround time, when they convert to cartridge tape technology. Translated into time, a computer job that required 100 minutes of wall clock time to process will now require 43 minutes to process. This improvement is obtained without any additional associated processing cost.

For those of you who have not converted to cartridge tapes, the sooner you start your conversion, the sooner you can start reaping the benefits of this technology. **Remember,** as of July 1, 1994, we will reduce the number of 3420 (round reel) tape drives available for processing to two.

We have not forgotten our heavy DASD users. On February 20, 1994, we installed an additional 3990 DASD controller. This controller has 128 megabytes of cache memory per storage cluster. One string of 3380Ks (60 gigabytes of storage) was re-cabled to connect to this new controller. The new controller will make DASD operations more efficient. Each second, an additional 14 megabytes of disk data will be available to the 3090 CPU for processing.

In the future, look for additional mainframe processing improvements and other no-cost value-added services.

New Tape Data Set Archival Policy

ISD is changing its policy concerning the archival of tape data sets. Until now, upon request from the user, we have copied data sets which are seldom used or not used at all to a special range of tapes known as "archive tapes" and stored them at an off-site location. The logic to this practice is to remove tapes from the tape library which do not need to be stored on-site, freeing up rack space for those which are used more frequently and, therefore, do need to be stored on-site. Keep in mind that this archival process has been at the discretion of the user.

As of April 1, 1994, ISD is implementing a policy for the archival of tapes not at the discretion of the user. On that date, we will begin archiving tape data sets which fall within the following criteria: any tape data set which has not been accessed for at least 2 years and 3 months. Using this criteria, on April 1st, we will begin archiving tape data sets which have not been accessed on or after January 1, 1992. We will continue this archival process on a quarterly basis, changing the last access date appropriately. For example, on July 1st of this year, we will begin to archive tapes which have not been accessed on or after April 1, 1992. You may still request to have tapes archived which fall outside the criteria defined above.

As has always been the case when a tape is archived, a report is produced and sent to the user. This report shows the volume serial number of the original tape as well as that of the archived tape. Also shown is the original create date, data set name, and other appropriate information. As has been the case previously, there is no charge to the user to copy these tape data sets to archive tapes. The storage charge for archive tapes remains at half the cost to store a tape on-site.

This new policy is the result of the critical shortage of floor space in the data center and the desire to more effectively manage the tape library. If you have any questions concerning this new policy, you may call Dave Smith or Frances Greene at 444-2860.

SyncSort--Space Requirements and Performance Considerations

The following information on SYNCSORT is intended to be used as a guideline for the effective use of SYSDA work space.

SORTWK file size should be specified as 1.3 times your SORTIN file size. For example, a SORTIN file with a file size of 15 megabytes (22 CYLS) when multiplied by 1.3 would result in a SORTWK size of 19.5 megabytes (29 CYLS). Code three SORTWK DD's with a SPACE parameter of SPACE=(CYL,(10,2), and a SORTOUT DD with a SPACE parameter of SPACE=(CYL,(22,2),RLSE) to sort this file.

The calculation for these values are:

SORTIN FILESIZE = NUMBER OF RECORDS times RECORD LENGTH
SORTWK SIZE = SORTIN FILESIZE times 1.3
SORTWK SPACE = SORTWK SIZE divided by TRACKS PER CYLINDER divided by BYTES PER TRACK divided by NUMBER OF SORTWK DD's
SORTOUT SPACE = SORTIN FILESIZE divided by TRACKS PER CYLINDER divided by BYTES PER TRACK

SORT space can be allocated in blocks, tracks, or cylinders. ALLOCATING IN CYLINDERS WILL YIELD OPTIMAL PERFORMANCE.

SYNCSORT will insure the space requested for the SORTWK and SORTOUT DD's PRIMARY allocation is available prior to sorting. If your input file size is static, reserve your SORT space by using PRIMARY space allocation. If your JCL is used for daily and month-end processing, and your input file size is static except at month-end, allow SECONDARY allocation to fill the space needs for the month-end runs. DO NOT reserve your month-end space needs for the daily runs.

The CONTIG option of the SPACE parameter should be avoided since it may delay allocation and offers no performance advantage.

The RLSE option of the SPACE parameter is now optional for SORTWK DD statements. RLSE has been set as the system default for SORTWK DD statements only.

The RLSE option of the SPACE parameter should be used for SORTOUT DD statements. NOT CODING the RLSE option wastes valuable disk space, and may cause other jobs to abend.

SORTWKnn DD statements are not used for merge or copy applications.

SYNCSORT error messages and summary information about SYNCSORT is contained in MVS/QUICKREF on the mainframe, SPF option U.Q. If you would like a copy of the SYNCSORT Programmer's Guide, call Glen Stroop at 444-2910.

ISD is currently working on expanding the number of disk volumes assigned to SYSDA. Jobs with large sorts (greater than 1,500 cylinders) should be scheduled with Dave Smith at 444-2857 to insure the requested space is available.

Online MVS Reference Information

The State of Montana has purchased MVS/QUICK-REF from Chicago Soft, Inc. This product is designed for anyone who processes batch jobs on the State mainframe computer. MVS/QUICK-REF contains summary information on a wide range of topics. Included is information on Error Messages, Abend Codes, Programming Languages, IBM Utilities, JCL, SYNCSORT, VTAM Printer Support (VPS), and a whole lot more.

You can display the MVS/QUICK-REF Main Menu from within ISPF by entering U.Q from the ISPF/PDF PRIMARY OPTION MENU, or by entering QW on the command line of any panel. Optionally, by entering QW TOPIC, where TOPIC is an error message or abend code, MVS/QUICK-REF will display the text for the topic you entered. The fastest way to use MVS/QUICK-REF is to define a MVS/QUICK-REF command to one of your PFKEYS. Then just move the cursor to the error message or abend code and press the PFKEY. MVS/QUICK-REF will display the text for the statement at the cursor location.

To find out more about MVS/QUICK-REF, enter QW README on any command line in ISPF. README contains information on setting up PFKEYS for invoking the quick lookup facility, searching the quick reference database,

and printing information contained in MVS/QUICK-REF. You can also access the MVS/QUICK-REF help tutorial by pressing you HELP PFKEY when you are in any of the MVS/QUICK-REF screens.

Questions or comments on MVS/QUICK-REF may be referred to Glen Stroop in the Application Support Section at 444-2910 or Denny Knapp in the End User Computing Section at 444-2072.

Pressure Seal Mailing System

ISD has been researching the possible acquisition of a pressure seal mailing system. This system is quite intriguing and would appear to have substantial potential benefit for many users. Before proceeding with such an acquisition, however, we need user feedback concerning its benefits and potential use. Below is a general description of how this system operates and its benefits.

This system provides the ability to create mailers using special paper. This paper is available in several styles and sizes with standard perforations or can be custom ordered with perforations to meet job specifications. This special paper contains pressure sensitive glue to seal the forms. Because the glue is not affected by heat, this paper can be printed on the laser printer as well as the impact printer. Once the documents are printed, they are fed into the pressure sealer where they are folded and sealed at a rate of up to 18,000 per hour. This system also has the capability of inserting up to two inserts (such as return envelopes, reply cards, instructions, etc.). The system operates at a rate of up to 8,000 documents per hour when inserting.

The ability to print these mailers on the laser printer offers the advantage of Advanced Function Printing capabilities where constant data (overlays, form letters, reports, etc.) and variable data can be merged to print along with the name and address for mailing. A second advantage of the laser printer is its superior print quality. This is particularly important with the installation of the new postal bar code/sorter at Central Mail. To take advantage of postal discounts offered, it is necessary to ensure readability of mailing addresses on documents. Also,

since the name and address are printed on the outside of the document, this mailer eliminates the need for window envelopes which can also create difficulties with the mail sorting process.

In addition, this type of mailer eliminates the costs associated with hand folding and stuffing of documents and the costs of the envelopes themselves. The cost of creating mailers in this fashion is also expected to be substantially less expensive than the cost of pre-printed mailers.

If you would like additional information concerning this system, please contact Jan Lewis at 444-2901 or Jerry Splawn at 444-2829. Also, please contact one of these individuals if you have applications for which this system may be useful.

Microcomputer

Alphabetizing Names in WordPerfect

Alphabetizing a list of 100 names can be an easy task--if you use WordPerfect's sort feature. However, there are a few tricks to sort names in natural (first, last) order.

First of all, let's suppose you have a list of a few names:

Bruce Peterson
Donna Henry
Mary Grist
Nancy Peterson
Paul Zabrinski

To sort these names properly, you will need to type them into WordPerfect, and then hit Merge-Sort <CTRL-F9>. Select <2>-Sort. At the *Input file to sort:* and *Output file to sort:* prompts, just press <ENTER>. This will select the screen as the file you want to sort. Then choose <3>-Keys. You will need to change key #1 to a, 1, 2; and key #2 to a, 1, 1. When you are done making the changes, press <F7>-Exit. You have just told WordPerfect to sort on the Last Name (2nd word) first, and then the First Name (1st word). Now, Select <1>-Perform Action, and the list will be sorted. You should now have your list in the following (alphabetized) order:

Mary Grist
Donna Henry
Bruce Peterson
Nancy Peterson
Paul Zabrinski

What happens when you have people with a middle initial? I added a couple of people to my list to see what would happen: Jane J. Johnson, and Long J. Silvers. I then sorted it as described above. The list ended up in the following order:

Mary Grist
Donna Henry
Jane J. Johnson
Long J. Silvers
Bruce Peterson
Nancy Peterson
Paul Zabrinski

Of course, WordPerfect sorted on the second word just like it was told to do. We could tell it to sort it on the third word, but this wouldn't work--some of the names don't have a middle initial. Instead, we'll use a little known trick in WordPerfect--tell WordPerfect to sort on the last word of the line. To do this, go into Merge-Sort <CTRL-F9> again, and edit the keys as described above. This time, however, use -1 instead of 2 for the word number in the first key. Your keys should be as follows: #1: a, 1, -1; #2: a, 1, 1. Do the sort again, and the list will be sorted properly:

Mary Grist
Donna Henry
Jane J. Johnson
Bruce Peterson
Nancy Peterson
Long J. Silvers
Paul Zabrinski

One last twist: I'm going to add Jim Smythe, Jr. and John Howard, Sr. to the list, and re-sort. Of course I get:

Mary Grist
Donna Henry
Jane J. Johnson
Jim Smythe, Jr.
John Howard, Jr.
Bruce Peterson
Nancy Peterson
Long J. Silvers
Paul Zabrinski

To make WordPerfect sort the people with titles properly, you need to insert Hard Spaces <HOME,SPACE> between the last name, and the title. This tricks WordPerfect into thinking that the title is part of the last name. Making this change, and sorting again, I get:

Mary Grist
Donna Henry
John Howard, Jr.
Jane J. Johnson
Bruce Peterson
Nancy Peterson
Long J. Silvers
Jim Smythe, Jr.
Paul Zabrinski

Which is how it's supposed to be sorted!

Hopefully, these tips on sorting names in Word-Perfect will help you sort your next set of names automatically, instead of by cutting and pasting the names to get them in order. The principles shown here can also be applied to almost any list you need to sort, even lists of items other than names.

If you have any questions about sorting in WordPerfect or any other WordPerfect questions, please call Forrest Christian of End User Systems at 444-2921.

Running into Environment Size Problems in Windows?

Increasing the environment size in your config.sys file may not provide the same space within Windows. Your DOS application may run fine outside of Windows, but within it you may receive an Out of Environment Space message. To correct this kind of situation, the following can be done:

Load the SYSTEM.INI for Windows into an editor (Notepad) and find the [NonWindowsAppl] section and add the following line:

CommandEnvSize=nnn (Where nnn is DOS environment size you require.)

Save the file and then exit the editor. The change takes effect immediately, without restarting Windows!

If you have any questions contact Jerry Kozak at 444-2907 or Irvin Vavruska at 444-2858.

Windows Wordprocessing

Converting to WordPerfect 6.0 for Windows? ISD recommends waiting for Release 6.0a.

Last September ISD selected WordPerfect as the State standard Windows wordprocessor. At that time the current release of WordPerfect for Windows (WPWin) was version 5.2. In October WordPerfect released version 6.0. WPWin 6.0 is a significant advancement over versions 5.1 and 5.2. Among the improvements in 6.0 are increased customization, enhanced document management, improved tables and integrated charting, and drawing. Despite these improvements, ISD has experienced several performance and feature problems with WPWin 6.0.

Performance

We conducted various hardware tests on PC's with a variety of clock speeds configured with varying amounts of RAM. After several weeks of using WPWin 6.0 from the network, on a IBM PS/2 20MHz Model 70 configured with 8Mg of RAM, it was determined that the performance is unacceptable. WordPerfect simply runs too slow on a 386-based machine for a user to be productive.

However, if you are using WPWin 6.0, some performance issues can be resolved by optimizing your machine to run under Windows. We suggest the following:

- Use a disk cache such as SmartDrive

- Set up a permanent swap file; for example, one common configuration is to have the total of your physical RAM plus your swap file equal 16MB

- Have an adequate files statement in your CONFIG.SYS; we recommend 50 or more if you are running multiple Windows applications

Features and File Compatibility

WordPerfect 6.0 introduced several new features and a new file format to accommodate those

features. The new file format is *not* compatible with previous versions of WordPerfect DOS or Windows. If you routinely share files within State government please use WPWin 6.0's **Save As** feature to save your files in WordPerfect 5.1/5.2 format.

We have also experienced minor problems with Master and Subdocuments and Outlining. The WordPerfect Corporation explained that these are known problems associated with Outlining especially in documents created in previous versions of WordPerfect.

Help is on the Way
Interim Release 6.0a

WordPerfect Corporation has always had a policy of responding to customer needs between major product upgrades. WordPerfect Corporation will issue WPWin 6.0a in March 1994.

The four major objectives for WPWin 6.0a are as follows:

1. Reliability
2. Speed
3. Ease of use tools
4. Transition tools for WPDos users

WordPerfect Corporation indicated that the outlining problems we've experienced will be fixed in the interim release. ISD is scheduled to receive 6.0a as soon as it is available. We then plan to retest hardware configurations and determine if a 386 can productively run WPWin.

If you have any questions about WordPerfect for Windows or the pending interim release, please call Kyle Wynn of End User Systems at 444-2859.

Tabbing in the ISPF Editor

The SPF Editor supports three distinct types of tabbing:

1 - Software tabbing. After each ENTER key press, Edit positions the cursor to a new (blank) line or to a new position in the current line.

2 - Hardware tabbing. Edit will format the display so that the keyboard tab keys can be used for entering/changing columns of data.

3 - Logical tabbing. A special tab character is defined which, when entered with input data, causes the data to be shifted into specified columns.

NOTE: Remember the tab's "primary" command is when "tabs" is entered at the command prompt. A tab "line" command is entered in the left hand column of any edit line.

Software Tabbing

Each time the ENTER key is pressed, Edit positions the cursor somewhere on the screen. Sometimes it is placed at the beginning of the command input field on line 2. Other times it remains at the same data position (even though the data may move on the screen). Most of the time, however, it is moved according to the rules of software tabbing.

You can control software tabbing by defining software tab fields on the tabs line (displayed using the TABS line command). If no software tab fields are defined, default software tabbing occurs.

Controlling Software Tabbing

You can control software tabbing by using the TABS "line" command, and over-typing the line with software tab fields. You can think of these fields as underlining every line on the screen and thereby identifying positions on the screen where the cursor can be placed.

TABS   --- ------ ------

The above example shows a tabs line with three software tab fields.

If the cursor is automatically positioned by software tabbing (and not by a FIND command, or scrolling, etc.), the cursor will always be positioned within a software tab field, or the cursor will be moved from its current position to somewhere in the next field on the same line.

If the cursor is in or beyond the last (or only) field on a line, it will be moved to somewhere in the first field of the next line.

If a software tab field consists of a single hyphen ("-") or underscore ("_"), the cursor is placed at that column position. If a software tab field is several characters long, the cursor is placed somewhere within the field according to the data on the screen.

Note: The TABS line also can contain asterisks (*), which define hardware or logical tab positions. The asterisks are ignored when performing software tabbing.

Hardware Tabbing

Hardware tabs allow you to use the FORWARD (TAB), BACKWARD (SHIFT-TAB), and NEW-LINE (ENTER) tab keys to easily position the cursor. Normally, the edit display screen has two fields (and thus two hardware tab characters) per line. You can define additional positions where you want tab characters to be generated by using the TABS line command. Then you can activate and deactivate the tab positions that you have defined, using the TABS primary command. When you activate tabs, you can specify whether tab characters are to be generated unconditionally, or only at character positions that are blank, and you can temporarily deactivate tab characters on a specific line.

If " ===> tabs all " is entered as a primary command, and if the tabs line looks like:

TABS   *   *   *

with hardware tabs defined in columns 10, 16, and 35, the corresponding columns of every line in which data can be entered would contain a tab character. This would allow you to use the tab keys to skip from column 1 to 11 to 17 to 36, all without any interrupts.

If you wanted to type into column 35 in the above example, it would be impossible (the cursor will skip right past a tab character and if you back up and try to enter data, the keyboard will lock up). You could enter a TABS OFF command to deactivate all tabs, or you can do one of the following:

- Position the cursor on the attribute byte and press ENTER.

- Blank out the sequence number for the line and press ENTER.

Either of the above will temporarily eliminate tabs on a single line.

Logical Tabbing

If response time is slow, software tabbing is not a practical way of entering data into multiple fields on a line. If data that is being entered will sometimes fall in a column that you have defined with a hardware tab character, hardware tabbing can be frustrating.

For some types of data entry, logical tabbing can solve both of the above problems. Logical tabbing allows you to define a special character as a tab character. Then when you enter data, you can use the special tab character and Edit will shift data into tab fields that are defined on the tabs line.

        COMMAND = = = > tabs ¬

Use this command to turn on logical tabbing and define ¬ as the tab character. (The tab-character consists of a single non-alphameric character. Some operands such as ' , and " must be enclosed in quotes.) The TABS line might look like:

==COLS> ----+----1----+----2----+----3

==TABS> -   *   *   *

Which defines tabs fields of 1-9, 10-15, 16-24, and 25-72 and always positions the cursor in column 1 (because of the "-" in column 1).

If you enter the lines:

000100 ¬la¬0,0,¬clear counter
000200 *¬¬¬to initial value

Edit will reformat the data:
 =COLS> ----+----1----+----2----+----3-

000100   LA   0,0 CLEAR COUNTER
000200 *   TO INITIAL VALUE

Input data which, when reformatted, would overlay a sequence number or extend beyond the end of the record, is discarded and an error message is displayed. If several tab positions are contiguous, one input tab character will skip

over all of them. This is useful if the tab positions are at the beginning of the line, and you want to create several lines at one time.

If you enter:

 =TABS> *********   *

000100 ¬A¬1¬B¬2¬C¬3¬D¬4

Edit will reformat the data:

000100   A   1
000110   B   2
000120   C   3
000130   D   4

If you have questions about tabbing in the ISPF editor you can use the ISPF tutorial found under the "T" primary option, or you can call us at End User System Support.

Zip!Tips

Confirmation of Delivery (C.O.D.)

To C.O.D. or not to C.O.D.--that is the question.

In ZIP!Mail, a C.O.D. can be assigned to any out-going mail to track the status of its delivery. The status, which is kept in your out-tray until you delete it, records the date and time a ZIP!Mail user actually processes the piece of mail. If sending to an EMC^2/TAO, or DEC system E-Mail user, the status records the time the item leaves the ZIP!Mail network.

Mail handling options such as the C.O.D. function can be set by selecting Options from the "Prepare and send mail" menu. In the next pop-up window, tab to the Confirmation of Delivery field, move the cursor to Yes and press enter or "Y".

An example of when to use C.O.D. appropriately is if you are sending a document to committee members that must be read it before an important meeting. You can check the out-tray and determine if each member has received the item. To do this, select Out-tray from the main menu. The next screen displays the time, date, sent to, and the status (delivered to # of #). Process the highlighted item for more detailed

information. This screen lists all recipients and tracks individually when they received the mail.

A ZIP!Mail recipient can tell if a sender used the C.O.D. function if a "Sending Confirmation of Delivery Back to Sender" message quickly flashes in the upper left hand screen once the Process key is selected.

One reminder--always leave the C.O.D. function in your Personal Default setting at "No". If every ZIP!Mail user sent all their mail with a C.O.D. attached, the mail traffic on the servers would literally double.

If you have any questions regarding Confirmation of Delivery or any other ZIP!Mail questions, please call Sue Skuletich of End User Systems at 444-1392.

Fig. 1. WinSpeed Screens

Another Windows Freebie!
WinSpeed

WinSpeed is a free Windows program that analyzes the performance of a PC from the Windows point of view. It tells you how well Windows is performing on your hardware setup and how this compares to other popular hardware configurations. The online Help also gives some suggestions on how to improve the performance of Windows on your hardware.

There are two screens displayed by WinSpeed-- the Main window and the More Information window. (See Fig. 1 below.) The Main window displays pertinent information about your hardware and Windows setup and how it compares to various other hardware averages. The More Information window displays your system's video and disk performance as tested when WinSpeed starts.

If you would like a copy of WinSpeed, contact Denny Knapp of End User Systems Support at 444-2072, or through Zip!Mail.
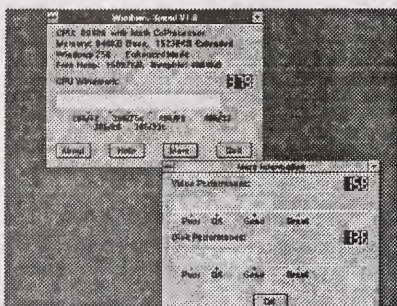
ISD Mailing List Update

We are in the process of updating our mailing lists. Please note that we have added a new category for receiving publications via **ELECTRONIC MAIL**. If you know of anyone interested in receiving *News and Views*, articles, notices, etc. in any of the categories listed on the attached "ISD MAILING LIST UPDATE FORM", please pass it along. Please send or fax all corrections or additions to:

Sandi Coyle
Department of Administration
Information Services Division
Room 25 Mitchell Building
Box 200113
Helena, MT 59620-0113
    Phone 444-3086
    Fax 444-4455

Please notify us of any corrections or additions by April 29, 1994, using the attached form.

Calendar of Events

March 9 - Information Technology Manager's Group (ITMG): Room 109, Health Building - 8:30.

March 15 - Information Technology Advisory Council (ITAC) meeting -EPP Issues - Governor's reception room - 8:30.

March 22 - Information Technology Advisory Council (ITAC) meeting -Task Force Reports - Governor's reception room - 8:30.

March 29 - Powersoft Demo Day. Free demo on PowerBuilder, a client/server application, and other Powersoft products. Colonial Inn, 9:00-12:00. Call 800-395-3525 to register.

April 14 - Multi-vendor trade show. New products, demos, presentations from IBM, DEC, Dell, and HP. Helena Vo-Tech, Rooms 214 & 211, 10:00-4:00.

End Notes

Submit Articles

If you'd like to submit an article to *News and Views* for publication, please send it to Dan Mossman or Brett Boutin, preferably by ZIP!-Mail. Please have your article in by the date below for inclusion in the month listed:

April Issue   3/18/94
May Issue   4/15/94

ISD Network Assistance Center - 444-2000

Got a problem? Need ISD assistance or support for any of your information processing needs--either voice or data? The central contact point is the ISD Network Assistance Center.

Electronic Distribution of *News and Views*

Help save a tree and have your N&V come to you electronically! Just let Brett or Dan know, and you will be added to the ZIP!Mail distribution list.

** ** ISD MAILING LIST UPDATE FORM ** **

Please notify us of any corrections or additions by April 29, 1994.

PLEASE CIRCLE ONE: ADD   CHANGE   DELETE

N&V:___ PROGRAMMER:___ DATABASE:___ STATISTICAL:___

LAST NAME: _____ FIRST NAME: _____

TITLE:_____ AGENCY:_____

DIV. BUR:_____ ADDRESS:_____

CITY:_____ STATE:_____ ZIP:_____

DISTRIBUTION TYPE:_____ B=BOX ISD BOX NUMBER:_____
                                 D=DEADHEAD
                                 M=MAIL
                                 E=ELECTRONIC MAIL

NOTICE: The first line of your address label lists the categories we use for mailings. An X indicates that you are currently marked to receive that type of information. A DESCRIPTION FOR EACH CATEGORY IS AS FOLLOWS:

NV (N&V)   =   NEWS & VIEWS
PRG (PROGRAMMER)   =   MAINFRAME UPDATES
DB (DATABASE)   =   MAINFRAME DATABASE UPDATES (IDMS)
ST (STATISTICAL)   =   MAINFRAME AND PC SAS USERS

Please send or fax all corrections or additions to:

   Sandi Coyle
   Department of Administration
   Information Services Division
   Room 25 Mitchell Building
   Box 200113
   Helena, MT   59620-0113

      Phone 444-3086
      Fax 444-4455

INFORMATION SERVICES DIVISION

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                          ISD
                     TONY HERBERT

                   FINANCIAL SERVICES
                    JEFF LUSTGRAAF

   ┌──────────────┬──────────────────┬──────────────────┐
COMPUTING      TELECOMM         SYSTEMS SUPPORT    POLICY
OPERATIONS    OPERATIONS        SHARON GORE        DEVELOPMENT
PAUL RYLANDER CARL HOTVEDT                         & CUSTOMER
                                                   RELATIONS
                                                   JEFF BRANDT
```

COMPUTING OPERATIONS — PAUL RYLANDER
- PRODUCTION SERVICES — MIKE STRINGS
- PRODUCTION SUPPORT — RICHIE BERGER

TELECOMM OPERATIONS — CARL HOTVEDT
- VOICE OPERATIONS — SID BAUM
- VIDEO OPERATIONS — RICK WINE
- WAN OPERATIONS — DENNIS SHELINE
- LAN OPERATIONS — RON ARMSTRONG

SYSTEMS SUPPORT — SHARON GORE
- SYSTEM DEVELOPMENT SUPPORT — GARY POEPPING
- END USER SYSTEMS SUPPORT — RANDY HOLM
- APPLICATIONS DEVELOPMENT — BALDWIN, CONRAD & SHEEHY

POLICY DEVELOPMENT & CUSTOMER RELATIONS — JEFF BRANDT
- CUSTOMER RELATIONS — WENDY WHEELER
- TELECOMM POLICY & DEVELOPMENT — JIM WHITE
- COMPUTING POLICY & DEVELOPMENT — JOAN ROSEMAN
- TECHNOLOGY DEVELOPMENT & DESIGN — TERRY KRAMER
- STATEWIDE 911 PROGRAM — LARRY PETERSON

SYSTEMS SUPPORT BUREAU

Date: 02/14/94

Total FTE: 33

SYSTEMS SUPPORT BUREAU — 2

Systems Development Support — 9

Data Systems Support

- IDMS, CICS, Oracle and related tools
- Capture Accounting Information
- Production Recover of Databases
- Performance Monitoring, Utilization and Availability
- Utilities and Routines
- Security & Disaster Recovery
- Mainframe E-Mail Support
- Software Acquisition
- CA-90 Services
- CA-One (TMS)

Database Design & Support

- IDMS, Oracle, XBase and Related Tools
- Database Reorganization & Maintenance
- Performance Monitoring, Utilization Query and Reporting
- Security & Disaster Recover
- Software Acquisition

Software Support

- CICS (Juggler, Assist/GT, Intertest, CSP)
- COBOL and COBOL II (Optimizer, Report Writer)
- IDMS (Culprit)
- Other (Comparex, VSAM, Strobe, JCL, Panvalet, SyncSort, SuperSession, MVS Quick/Ref)
- Software Acquisition

End User Systems Support — 8

Office Automation Support

- Wordprocessors
- E-mail
- Calendar
- Statewide BBS

Desktop Data Services

- Graphics
- Statistics
- Spreadsheets
- Adhoc Query & Report
- Decision Support
- Public Access Systems
- ISD LAN Administration

Applications Development — 14

- Statewide Financial Systems (SBAS, PPP, etc.)
- Agency Business Systems (PERS, UCC, etc.)
- ISD Systems (Computer Billing System, etc.)
- Client/Server Design & Development

POLICY, DEVELOPMENT, & CUSTOMER RELATIONS BUREAU

Date: 02/14/94

FTE: 23.14

POLICY, DEVELOPMENT, & CUSTOMER RELATIONS BUREAU — 1

Customer Relations — 8.57

Customer Support
- 1st Level Problem Determination & Resolution
- Data Network Adds Moves & Changes
- Inventory Control
- Network Monitoring (Net Lan Mgt & Cisco Works)
- Project Support (Equipment)
- Line List Maintenance
- Security Backup

Training & Communications
- Publications & Standards
- Training (External & Internal)
- Marketing
- Customer Education
- Agency Liaison
- ITMG Liaison

Security & Disaster Recovery

Telecomm Policy & Development — 5.57
- Strategic Planning, Initiatives, & Projects
- Tactical Initiatives
- Formal Liaisons
- Acquisition Services (RFPs Contracts, and Term Contracts)
- Agency Planning Initiatives
- Methods, Standards & Compliance
- Security & Disaster Recovery

Computing Policy & Development — 4
- Strategic Planning, Initiatives, & Projects
- Tactical Initiatives
- Formal Liaisons
- Acquisition Services (RFPs Contracts & Term Contracts)
- Agency Planning Initiatives
- Methods, Standards & Compliance
- Security & Disaster Recovery

Technology Development & Design — 2
- Strategic Planning, Initiatives, & Projects
- Tactical Initiatives
- Formal Liaisons
- Acquisition Services (RFPs, Contracts & Term Contracts)
- Agency Planning Initiatives
- Methods, Standards & Compliance
- Security & Disaster Recovery

Statewide 9-1-1 Program — 2

Computing Operations Bureau

Date: 02/14/94

Total FTE: 29.5

COMPUTING OPERATIONS BUREAU — 1

Production Services — 14.75

Computer Operations
- Computer Operations

Computer Operations Support
- Job Scheduling
- Customer Services
- Clerical Support

COM
- COM Production, Duplication, & Distribution

Production Support — 13.75

Operating System Technical Support
- Software Configuration
- Hardware Configuration
- Performance Tuning
- System Backup & Recovery
- Software Installs & Maintenance
- Capacity Planning
- Operating System Security
- Software Acquisition
- Development & Installs Utilities & Routines

Network Interface Support
- VTAM
- NCP
- Netview

Methods & Media Mgt
- Operations Methods
- Advanced Function Printing
- DASD Management
- Tape Management
- Security & Disaster Recovery Accomodation
- Data Entry Contractor Interface
- "Value Added" Services Support
- System Monitoring & Reporting

TELECOMMUNICATIONS OPERATIONS BUREAU

Date: 02/14/94

Total FTE: 25

TELECOMMUNICATIONS OPERATIONS BUREAU — 1

Voice Operations — 11

- Network Integrity (STN)
- Installs & Support: PBX & KEY
- Telephone Work Order Management
- Switchboard
- Conference Calls
- 800 Services
- Student Services
- Credit Cards
- Installs & Support: Voice Mail/IVR
- Security & Disaster Recovery
- Division Technical Design Assistance

Video Operations — 1

- Installs & Support
- Utilization, Performance Monitoring, & Availability
- Division Technical Design Assistance
- Video Scheduling

WAN Operations — 5

- Installs & Support: Fiber Optic Backbone
- Installs & Support: Gateways, Bridges, Routers, Controllers, & Modems
- Installs & Support: Multidrop Links & Front End Processors
- Installs & Support: SNA, & Multiprotocol Networks
- Utilization, Performance Monitoring & Availability
- 2nd Level Problem Determination & Resolution
- Internet Implementation & Support
- Security & Disaster Recovery
- Division Technical Design Assistance

LAN Operations — 7

- Installs & Support: Gateways, Bridges, & Routers
- Installs & Support: Token Rings
- LAN Operating System Implementation & Support
- Utilization, Performance Monitoring, & Availability
- 2nd Level Problem Determination & Resolution
- Installs & Support: ISD/Zipmail Servers
- LAN & Workstation Add/Moves/Change
- Division LAN Operations
- Security & Disaster Recovery
- Division Technical Design Assistance

Training Information

All classes will be held in Room 210 at the Helena Vo-Tech center at 1115 N. Roberts, unless another location is specified. Please note that these costs are subject to change each July 1st.

To enroll in a class, **you must send or deadhead an enrollment application** to the State Training Center, HVTC, Helena, MT 59601. If you have questions about enrollment, please call 444-6800. *Once you enroll in a class, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.*

The classes available and their costs are as follows:

Class Name	Cost	Length in Days
*MVS\ESA - Differences from MVS\XA	FREE	¼
Introduction to TSO/SPF	$ 85.00	1
Introduction to JCL (Job Control Language)	340.00	4
*Introduction to CICS Programming	**	5
*Introduction to IDMS Database Programming	**	5
*IDMS ADS/Online	**	5
Introduction to CULPRIT	255.00	3
*Subscripting in CULPRIT	FREE	¼
*CULPRIT Programming for IDMS	170.00	2
*Introduction to SAS: Module 1	21.25	¼
Module 2	21.25	¼
Module 3	212.50	2½
*Novell Network Administration	170.00	2
*Novell NetWare System Manager	**	3
*Novell NetWare Advanced System Manager	**	3
*Novell Netware Service & Support	**	5
PC Maintenance	170.00	2
*Windows Purchase, Installation and Use Considerations	FREE	¼
*Windows for the Technical Support Team	**	2
Beginning Microcomputer Skills	85.00	1
Fundamentals of DOS	85.00	1
Intermediate DOS	85.00	1
Introduction to Novell Networks	42.50	½
Introduction to Windows	85.00	1
CorelDraw	85.00	1
*CA-Docview	FREE	¼
*Introduction to Quickref	FREE	¼
*Introduction to WordPerfect (5.0 or 5.1)	127.50	1½
Advanced Features of WordPerfect 5.0	127.50	1½
*WordPerfect Complex Document Functions	42.50	½
*More WordPerfect Complex Document Functions	42.50	½
WordPerfect 5.1 Tables	42.50	½
WordPerfect 5.1 Columns and Math Functions	42.50	½
WordPerfect 5.1 Graphics	85.00	1
WordPerfect Merge and Sort Functions	42.50	½
WordPerfect 5.1 Macros	85.00	1

Advanced WordPerfect Macros	42.50	½
*WordPerfect 5.1 Tips and Tricks	FREE	¼
*Conversion from WordPerfect 5.0 to 5.1	FREE	¼
Conversion to WP 5.2 for Windows	42.50	½
Desktop Publishing for WP	85.00	1
*Spreadsheet Design and Documentation	85.00	1
*Conversion from Lotus 1-2-3 Rel.2.2 to Rel.3.1	FREE	¼
Introduction to Lotus 1-2-3, (Release 2.3 or 3.1)	170.00	2
Intermediate Lotus 1-2-3, (Release 2.3 or 3.1)	85.00	1
Lotus 1-2-3 WYSIWYG Features (Release 2.3 or 3.1)	42.50	½
Lotus 1-2-3 Graphics (Release 2.3 or 3.1)	42.50	½
*Lotus 1-2-3, Release 3.1, 3-Dim. Spreadsheets	42.50	½
*Lotus 1-2-3 Printing (Release 2.3 or 3.1)	42.50	½
Lotus 1-2-3 for Windows	FREE	¼
Freelance for Windows	85.00	1
*Freelance for Windows - Conversion	FREE	¼
Lotus 1-2-3 Macros (Release 2.2, 2.3, or 3.1)	170.00	2
*Introduction to Lotus 1-2-3 Database Features	170.00	2
*Introduction to PFS:Professional File, Ver. 2.0	85.00	1
*Micro Database Concepts and Design	85.00	1
*Introduction to R:Base, Release 3.1	212.50	2½
*Advanced R:Base Release 3.1	170.00	2
*R:Base Query and Reports (Rel. 3.1)	85.00	1
*R:Base Views (Rel. 3.1)	FREE	¼
*Intermediate R:Base (Rel. 3.1)	170.00	2
*State Telephone Training	FREE	¼
*Orientation to State's Computer Center	FREE	¼
⁺Introduction to IBM's Library Reader	FREE	¼

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*   This class is not scheduled during the time covered in this issue.

Training Calendar

Data Network/Mainframe Classes

March 14, 15, 16, 17	Introduction to JCL
April 13, 14	Introduction to Novell Networking
May 17, 18 & 19	Introduction to Culprit

Microcomputer Classes

March 22	Intermediate DOS
March 30	Beginning Micro Skills
March 31	PC Memory Management
April 12	Introduction to DOS
April 26	Introduction to Windows
April 27	CorelDraw
May 10 & 11	PC Maintenance
May 16	Introduction to Windows

Word Processing Classes

March 9 a.m.	WordPerfect Tables
March 9 p.m.	WordPerfect Columns & Math
March 10	WordPerfect Graphics
March 24	Introduction to WordPerfect for Windows
April 6 & 7	Advanced Features of WordPerfect
April 19	WordPerfect for Windows Conversion
April 20	Desktop Publishing with WordPerfect for Windows
May 3	WordPerfect Merge & Sort
May 12 a.m.	WordPerfect Macros
May 12 p.m.	Advanced WordPerfect Macros
May 25	Introduction to WordPerfect for Windows

Spreadsheet Classes

March 23	Intermediate Lotus
March 29 a.m.	Lotus Graphics
April 28	Lotus Freelance
May 4 & 5	Lotus Macros
May 23 & 24	Introduction to Lotus
May 26	Conversion to Lotus for Windows
May 31	Lotus WYSIWYG

INTRODUCTION TO JCL (JOB CONTROL LANGUAGE):   presented by Denny Knapp of the
                                                    Application Services Bureau

DATE:	March 14, 15, 16, and 17, 1994
TIME:	8:30 a.m. to 4:30 p.m. each day
PREREQUISITE:	Introduction to TSO/SPF
LOCATION:	Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This course is designed for programmers, I/O controllers, operations technicians or users of
report-writing software who submit jobs on the State's mainframe system.

The course will cover:

- Syntax and coding of IBM Job Control Language (JCL)
- MVS operating system
- Handling datasets and device assignments
- Some of the IBM utilities
- Troubleshooting and interpreting system messages
- Hands-on experience writing and executing JCL

INTRODUCTION TO CULPRIT:

DATE:	May 17, 18, & 19, 1994
TIME:	8:30 a.m. to 4:30 p.m.
PREREQUISITE:	Introduction to TSO/SPF and JCL
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This 3-day class is directed toward end users and programmers. It will cover the basic functions of the
CULPRIT report writer and the basic aspects of generating reports from standard files. It will not treat
more advanced topics such as database access or match files. Topics covered will include:

Generating a basic report from standard files
Enhancing and formatting the report
Generating multiple reports
Sequencing report output
Selective processing
Understanding programming logic
Performing arithmetic operations
Directing processing flow
Generating total lines
Generating subtotals and sort levels
Printing selected output lines

INTRODUCTION TO NOVELL NETWORKING: presented by the staff of the Helena Vo-Tech Center

DATE: April 13 and 14, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Intermediate DOS
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will introduce students to the basic concepts of networking in the Novell 3.11 environment. Students will learn how to oversee the operation of a Novell network including managing hardware and software as well as how to set up users, directories, and security. It is important to understand that this course is not part of the CNE certification.

Microcomputer Classes

PC MAINTENANCE: presented by the staff of the Helena Vo-Tech

DATE: May 10 & 11, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Working knowledge of DOS
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course is designed to give participants insight into normal routine maintenance of the personal computer. Topics covered will be internal diagnostics, add-on cards, memory management, systems upgrades, hard disk performance tips, and routine troubleshooting techniques.

MEMORY MANAGEMENT: presented by the staff of the Helena Vo-Tech Center

DATE: March 31, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Intermediate DOS and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will give students an opportunity to work with memory configurations on the PC. Extended memory and expanded memory will be discussed. Other topics covered will be device drivers, disk caches, RAM disks, and configuring Windows. Some time will also be spent on interactive batch files.

BEGINNING MICROCOMPUTER SKILLS: presented by the staff of the Helena Vo-Tech Center

DATE: March 30, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Intermediate DOS and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course will give participants brief hands-on experience with microcomputers. The following topics will be covered:

. The Machine
. The Operating System
. Word Processing

. Spreadsheets and Graphics
. File Management
. Communications

Most class time will be spent using microcomputers and software. This course helps develop a positive attitude toward using microcomputers and teaches their basic functions. This class--or its equivalent--is a prerequisite for our other microcomputer courses.

FUNDAMENTALS OF DOS: presented by the staff of the Helena Vo-Tech Center

DATE: April 12, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

"Fundamentals of DOS" is intended for microcomputer users who need to know more about controlling the microcomputer through its operating system. Programming experience is NOT required. Topics to be covered include:

- What is DOS? Why is it necessary to know about it?
- DOS names for peripherals
- File naming
- Set-up files such as CONFIG.SYS
- Internal DOS commands - DIR, ERASE, RENAME, TYPE, COPY and their variations
- External commands - FORMAT, SYS, DISKCOPY, CHKDSK, MODE
- Interpreting batch files
- Backup procedures

INTERMEDIATE DOS: presented by the staff of the Helena Vo-Tech Center

DATE: March 22, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Fundamentals of DOS or equivalent
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class is designed to follow the "Fundamentals of DOS" class and to give the user a better understanding of and increased ability to use DOS. It is not designed for programmers and does not cover all the advanced features of the operating system. The following topics are covered:

- ATTRIB
- Batch File Creation
    EDLIN
    Batch file commands
- DISKCOMP
- Filters (FIND, MORE)

- JOIN
- LABEL
- MODE
- REPLACE
- SELECT
- XCOPY

INTRODUCTION TO WINDOWS: presented by the staff of the Helena Vo-Tech Center

DATE: April 26, 1994
                            May 16, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Beginning Microcomputer Skills or three months of daily microcomputer use
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course is a general introduction to Windows. It will cover the basics and show how Windows makes other applications easier to use and more productive. Topics will include:

- What are Windows - multi-tasking and task switching
- Using DOS applications
- Using Windows accessories and features
- Screen, window and menu navigation
- Window sizing and movement
- Customization

This course will not include training for system administrators and programmers. It will not cover Windows installation, maintenance or advanced features such as use for programming and file/directory management.

LOTUS FREELANCE: presented by the staff of the Helena Vo-Tech Center

DATE: April 28, 1993
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will give participants hands-on experience using Freelance to create many types of figures, drawings and graphs. Students will learn to use Freelance's symbol library and freehand drawing capabilities and to import data from Lotus 1-2-3 spreadsheets to create a publication-quality chart or graph.

CORELDRAW 3.0 FOR WINDOWS: presented by the staff of the Helena Vo-Tech Center

DATE: April 27, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Familiarity with DOS and Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will give new users an overview of CorelDraw its features and abilities. CorelDraw is made up of six components: CorelPHOTO-PAINT, CorelMOSAIC, CorelTRACE, CorelDRAW, Corel-CHART, and CorelSHOW. Students will learn to create and edit graphic figures, boxes, lines, charts and photographic images through hands on exercise. These abilities will then be combined to produce a basic slide show. This course is tailored for the beginning windows graphic user. Additional and more advanced classes will be scheduled for each component of the Corel system.

ADVANCED FEATURES OF WORDPERFECT 5.1:   presented by the staff of the Helena Vo-Tech
Center

DATE: April 6 & 7, 1994
TIME: 8:30 a.m. to 4:30 p.m. on <u>first day</u>
                        8:30 a.m. to noon on <u>second day</u>
PREREQUISITE: Introduction to WordPerfect 5.0 and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

For those already using WordPerfect 5.0, the advanced class will cover footnotes, column generation,
sorting capabilities, dual document editing, font changes within a document, creation of
style sheets and master documents, keyboard layout, the compose function and graphics.

ADVANCED WORDPERFECT 5.2 FOR WINDOWS: presented by the staff of the Helena Vo-Tech
Center

DATE:
TIME: 8:30 a.m. to 4:30 p.m. on <u>first day</u>
                        8:30 a.m. to noon on <u>second day</u>
PREREQUISITE: Introduction to WordPerfect 5.0 and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

For those already using WordPerfect for Windows 5.2, the advanced class will cover footnotes, column
generation, sorting capabilities, dual document editing, font changes within a document, creation of
style sheets and master documents, keyboard layout, the compose function and graphics.

WORDPERFECT 5.1 TABLES: presented by the staff of the Helena Vo-Tech Center

DATE: March 9, 1994
TIME: 8:30 a.m. to 12:00 p.m.
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will cover the creation of tables in WordPerfect 5.1. Once students practice with Word-
Perfect's Tables feature they will be able to create and edit large, complex tables and provide automati-
cally for table entries requiring calculation. Students will learn to create tables with text only or with
combinations of text and numbers. Students will use math functions and create formulas to generate
table entries and will define and generate column totals and row totals.

WORDPERFECT 5.1 COLUMNS AND MATH FUNCTIONS: presented by the staff of the Helena
                                                    Vo-Tech Center

DATE: March 9, 1994
TIME: 1:00 p.m. to 4:30 p.m.
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will cover the column and math features in WordPerfect 5.1. Students will learn to set up
and edit newspaper and parallel columns of various widths and lengths. They will practice editing text

or figures in columns without losing the desired layout or visual effect. For column entries requiring calculation, subtotals and totals, students will learn to create and use column definitions, math functions, and formulas.

WORDPERFECT MERGE AND SORT FUNCTIONS: presented by the staff of the Helena Vo-Tech Center

DATE: May 3, 1994
TIME: 1:00 p.m. to 4:30 p.m
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will cover the file merge and sort features of WordPerfect. Students currently using WordPerfect 5.0 or 5.1 will have hands-on practice with the steps needed to generate files sorted in a variety of ways. They will also learn to merge primary and secondary files for mass mailings, for example, and to set up files for keyboard merges.

WORDPERFECT 5.1 GRAPHICS: presented by the staff of the Helena Vo-Tech Center

DATE: March 10, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to WordPerfect
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will cover the creation and use of WordPerfect 5.1 graphics. Students will learn to create and edit graphic figures, boxes and lines. Hands-on exercises will include using these boxes, figures and lines with a variety of fonts and with the compose function. The class will also cover changes in the Setup and Print functions often associated with graphics.

CONVERSION TO WORDPERFECT 5.2 FOR WINDOWS: presented by the staff of the Helena Vo-Tech Center

DATES: April 19, 1994
TIMES: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to WordPerfect and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class is designed for persons who are experienced with WordPerfect. It will cover the functional differences between WordPerfect for DOS and WordPerfect for Windows Version 5.2. An emphasis will be placed on the graphic user interface elements which make WordPerfect for Windows look and feel like other Windows products. Some of the many new features to be demonstrated include: pull down menus, pop-up lists, dialog boxes, Button Bar, and the File Manager.

WORDPERFECT 5.1 MACROS   presented by the staff of the Helena Vo-Tech Center

DATE: May 12, 1994
TIME: 8:30 a.m. to 12:00 p.m.
PREREQUISITE: Introduction to WordPerfect 5.0 or 5.1
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This is a seminar class that will cover the theory and construction of basic WordPerfect macros. Class will begin with simple hot key and named macros and proceed through the introductory level of the macro language. Special macros will be created such as capturing inside addresses for printing envelopes and building simple menus for lists of commonly used tasks. Students are encouraged to bring examples of tasks for instructor assisted class projects.

DESKTOP PUBLISHING WITH WORDPERFECT FOR WINDOWS 5.2: presented by the staff of the Helena Vo-Tech Center

DATE: April 20, 1994
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to WordPerfect for Windows 5.2
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class will combine all the essential elements of desktop publishing--text, graphic images, and page design and layout--to create and print professional-looking documents. Students will work with fonts and type sizes, kerning, multicolumn formats, graphic lines, graphic boxes, and graphic images. Also covered will be use of the scanner to produce graphic images.

INTRODUCTION TO WORDPERFECT 5.2 FOR WINDOWS: presented by the staff of the Helena Vo-Tech Center

DATES: March 24, 1994
                 May 25, 1994
TIMES: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Beginning Microcomputer Skills and Introduction to Windows
LOCATION: Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class is designed as a basic introduction to WordPerfect for Windows. Experience with WordPerfect is not necessary. Participants will go through the fundamentals of creating, formatting, editing and printing documents. Some advanced features will also be covered, including spell checking, searching for words or phrases, marking blocks of text, moving text and listing/retrieving document files.

ADVANCED WORDPERFECT 5.1 MACROS: presented by the staff of the Helena Vo-Tech

DATE: May 12, 1994
TIME: 1:00 p.m. to 4:30 p.m.
PREREQUISITE: WordPerfect 5.1 Macros
LOCATION: Helena Vo-Tech, 1115 N. Roberts, Room 210

This class will focus on the development of more difficult WordPerfect Macros. Macros covered will include fill-in-documents, nesting macros, and conditional macros. The primary emphasis will be on macro programming.

INTRODUCTION TO LOTUS 1-2-3, RELEASE 2.4: presented by the staff of the Helena Vo-Tech Center

DATE:	May 23 and 24, 1994
TIME:	8:30 a.m. to 4:30 p.m.
PREREQUISITE:	Beginning Microcomputer Skills
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class is a generic introduction to Lotus 1-2-3 for persons with little or no Lotus experience. It will consist of instructions and hands-on practice, with lab time available for building spreadsheets of the participants' choosing.

The class will cover design, creation, printing and editing of spreadsheets. Additional topics will include selected graphic features, the use of formulae to connect spreadsheets, and the opening of multiple files at the same time. Students will learn about new WYSIWYG (What You See Is What You Get) features of Releases 2.3 and 3.1 such as enhanced printing of spreadsheets and graphs.

LOTUS 1-2-3 WYSIWYG FEATURES: presented by the staff of the Helena Vo-Tech Center

DATE:	May 31, 1994
TIME:	8:30 a.m. - 12:00 p.m.
PREREQUISITE:	Introduction to Lotus 1-2-3
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course is intended for users of Release 2.3, 3.1 or 3.1+ who are already using Lotus 1-2-3 to create spreadsheets. It introduces students to the WYSIWYG (What You See Is What You Get) features of Lotus 1-2-3. The class consists of lecture and hands-on practice with the following features:

- Format--fonts, boldface, italics, underline, shadow, and outline
- Text--ranges, alignment, edit
- Screen display, zoom and customization
- Graphics within a worksheet--adding, enhancing, changing size or location
- Page layout
- Previewing and printing
- Advanced WYSIWYG features

LOTUS 1-2-3 GRAPHICS: presented by the staff of the Helena Vo-Tech Center

DATE:	March 29, 1994
TIME:	8:30 a.m. to 12:00 p.m.
PREREQUISITE:	Introduction to Lotus 1-2-3
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course is intended for users of Release 2.3, 3.1 or 3.1+ who are already using Lotus 1-2-3 to create spreadsheets. After a review of the basic Graph features, students will explore options such as automatic graph creation, group data ranges, graph windows, graph areas and Named versus Saved graphs. The class will then cover graphic display and print options. Students will learn to select colors, patterns, fonts and graph types and to save graphs and incorporate graphics into their spreadsheets.

INTERMEDIATE LOTUS 1-2-3, RELEASE 2.3 OR 3.1:   presented by the staff of the Helena Vo-Tech Center

DATE:	March 23, 1994
TIME:	8:30 a.m. to 4:30 p.m.
PREREQUISITE:	Introduction to Lotus 1-2-3
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This course is intended for users of Release 2.3, 3.1 or 3.1+. It covers intermediate features of Lotus 1-2-3 for those who are familiar with Lotus basics. It consists of instructions and hands-on practice, with lab time available for building spreadsheets of the students' choosing. The following topics will be presented:

- @ functions
- Date and time formats and functions
- Ranges--naming, hiding and protecting ranges; using range commands
- Global defaults
- Titles, windows and text editing

Time permitting, the following topics will be covered with some hands-on practice:

- Selected file functions and file linking
- Magellan Viewer Addin (available in Releases 2.3 and 3.1+ only)
- Auditor Addin (available in Releases 2.3 and 3.1+ only)

LOTUS 1-2-3 MACROS: presented by the staff of the Helena Vo-Tech Center

DATES:	May 4 and 5, 1994
TIMES:	8:30 a.m. to 4:30 p.m. each day
PREREQUISITE:	Beginning and Advanced Lotus 1-2-3 Release 2.2
LOCATION:	Helena Vo-Tech Center, 1115 North Roberts, Room 210

This class is designed for those who want to learn about Lotus 1-2-3 macros. It will consist of instruction, demonstrations, and hands-on practice with lab time available to build spreadsheets of participant's choosing. The class will concentrate on using 1-2-3 Release 2.3 to design, create, and edit macros to perform simple operations or redundant tasks. The material covered will apply to all releases of Lotus 1-2-3 (2.2, 2.3, and 3.1). It will include writing and debugging macros, using the keystroke recorder, and using advanced macro commands.

CONVERSION TO 1-2-3 FOR WINDOWS, RELEASE 1.1:   presented by the staff of Helena Vo-Tech

DATE:	May 26, 1994
TIME:	8:30 a.m. to 4:30 p.m.
PREREQUISITE:	Lotus 1-2-3, knowledge of Windows is helpful
LOCATION:	Helena Vo-Tech 1115 N. Roberts Room 210

This course is designed for anyone who has converted, or is planning to convert, to Lotus 1-2-3 for Windows Release 1.1. It consists of lecture and hands-on practice. The class covers features which are new to 1-2-3 for Windows as well as features which have changed from the DOS version. Some topics which will be discussed are Automatic Print Compression, Print Preview, 1-2-3 Classic menu, Graph Gallery, Solver and BackSolver, Dynamic Data Exchange (DDE), access to the Windows clipboard, greater flexibility in debugging macros, adding documentation to complex formulas, as well as worksheet and macro compatibility. SmartIcons and SmartPak options will also be discussed. These include AutoSum, SmartFill, SmartFormat, 3-D Sum, Centering Over Columns, and Zoom. Wysiwyg features which will be discussed include creating high quality reports by combining text, data, graphs, and styles, and enhancing graphs with drawing tools.

CLASS ENROLLMENT APPLICATION

COMPLETE THIS APPLICATION IN FULL AND SUBMIT IT AT LEAST ONE WEEK PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc. Sec. Number (for P/P/P): _____

Agency & **Division:** _____ / _____

Mailing Address: _____

_____

Phone: _____

How have you met the required prerequisites for this course?
Explain, giving the class(es) taken, tutorial(s) and/or experience.

_____

_____

_____

BILLING INFORMATION/AUTHORIZATION **MANDATORY**

Responsibility Center: _____

Authorized Signature: _____

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE
THE START DATE OF THE CLASS.

DEADHEAD OR MAIL COMPLETED FORM TO:

HELENA VO-TECH CENTER
COMPUTER TRAINING CENTER
1115 NORTH ROBERTS, HELENA 59601
FAX 444-6892

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